5

10

15

20

25

CLAIMS

What is claimed is:

- 1. A magnetic thick film composition comprising particles of permanent magnetic materials comprising Nd-Fe-B system materials, dispersed in organic medium wherein the medium comprises a polymer selected from polyurethane, phenoxy and mixtures thereof, and organic solvent.
- 2. The composition of Claim 1 wherein said particles of permanent magnetic materials further comprise other rare earth metals that contribute to the magnetic properties selected from Pr, Sm, Eu, Gd, and mixtures thereof.
- 3. The composition as in any one of Claims 1 or 2 wherein said particles of permanent magnetic materials further comprise other transition metals selected from Cr, Ni, Co, Mn, and mixtures thereof.
- 4. The composition of any one of Claims 1-3 wherein the magnetic particles are found in the composition in the range of 50-91% by weight based on total composition.
- 5. The composition of any one of Claims 1-3 wherein the organic medium is found in the composition in the range of 9-50% by weight based on total composition.
- 6. The composition of any one of Claims 1-3 which is of paste consistency suitable for screen-printing.
- 7. The composition of any one of Claims 1-3 disposed on a substrate wherein the composition is processed to at least substantially remove the organic solvent.
- 8. The composition of Claim 6 wherein the composition is applied to a substrate by a disposing means.
- 9. The composition of Claim 8 wherein the disposing means is selected from screen-printing, spraying, doctor blading, brushing and dipping.